

**We claim:**

1. A process of producing one or more fructans selected from fructans having  $\beta(2-1)$  linked D-fructosyl units and fructans having  $\beta(2-6)$  linked D-fructosyl units, comprising subjecting a fructose source selected from sucrose, raffinose, stachyose and fructo-oligosaccharides to a *Lactobacillus* strain containing and capable of expressing at least one protein having fructosyltransferase activity, under non-growth conditions, to obtain a mixture containing said one or more fructans.
2. The process of claim 1 for producing from fructans having  $\beta(2-1)$  linked D-fructosyl units, wherein said *Lactobacillus* strain contains at least one protein having fructosyltransferase activity and exhibiting at least 85% amino acid identity, as determined by the BLAST algorithm, with an amino acid sequence of SEQ ID No. 1.
3. The process of claim 1 for producing from fructans having  $\beta(2-6)$  linked D-fructosyl units, wherein said *Lactobacillus* strain contains at least one protein having fructosyltransferase activity and exhibiting at least 85% amino acid identity, as determined by the BLAST algorithm, with an amino acid sequence of SEQ ID No. 11.
4. The process according to claim 1, further comprising separating said fructans from said *Lactobacillus* strain and adding a food or beverage composition to said fructans, to obtain a prebiotic composition.
5. The process according to claim 1, further comprising adding a food or beverage composition to said mixture, to obtain a synbiotic composition.
6. The process according to claim 1, further comprising chemically modifying said one or more fructans by simultaneous 3- and 4-oxidation, by 1- or 6-oxidation, phosphorylation, acylation, alkylation, hydroxyalkylation, carboxymethylation, epoxyalkylation, aminoalkylation of one or more anhydrofructose units of said fructans, or by hydrolysis.

7. A process of producing a chemically modified fructan having at least 100  $\beta(2-1)$  linked or  $\beta(2-6)$  linked D-fructosyl units, comprising chemically modifying said fructan by simultaneous 3- and 4-oxidation, by 1- or 6-oxidation, phosphorylation, acylation, alkylation, hydroxyalkylation, carboxymethylation, epoxyalkylation, aminoalkylation of one or more anhydrofructose units of said fructans.
8. The process of claim 7, wherein a fructan having  $\beta(2-6)$  linked D-fructosyl units is chemically modified by 1-oxidation using a nitroxyl catalyst.
9. The process of claim 8, wherein partial 1-oxidation of a fructan having  $\beta(2-6)$  linked D-fructosyl units is carried out to obtain a product containing both aldehyde and carboxylic functions.
10. A chemically modified fructan having at least 100  $\beta(2-6)$  linked D-fructosyl units, containing between 1 and 100 1-aldehyde/carboxyl groups per 100 D-fructosyl units.
11. The modified fructan of claim 10, containing between 1 and 50 1-aldehyde groups and between 1 and 50 1-carboxyl groups per 100 D-fructosyl units.